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APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

L 38154-66 EWT(1)/EWT(m)/T-2 DE/WE ACC NR. AP6025614 SOURCE CODE: UR/0413/66/000/013/0055/0055 30 INVENTOR: Kogan, P. A. 29 . 4 B ORG: none TITLE: Gas-jet ejector. Class 27, No. 183318 SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 55 TOPIC TAGS: ejector, aircraft fuel system ABSTRACT: The proposed ejector contains a receiving chamber with a gas feed line, an annular nozzle, and an annular mixing chamber with a center body positioned along the Fig. 1. Gas ejector 1 - Receiving chamber; 2 - feed line; 3 - nozzle; 4 - mixing chamber; 5 center body; 6 - support ribs. Card 1/2 UDC: 621.694.621.69 2/2mLP

RG: none TTLE: Absolute-pressure regulator for a sealed aircraft cabin. Class 42, 187420 DURCE: Izobrateniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 158 DPIC TAGS: pressure compensator, pressure measurement, pressure regulation, ressure regulator, aircraft pressurization, aircraft cabin, which contains pressure-drop and speed-of-change ackups (consistings of membranes with rigid centers connected valves for controlling the escape of air to the atmosphere) and an absolute-pressure pickup. To increase egulator reliability and simiplify its design, the absolute-pressure pickup in the form of a spring-supported membrane; to one side is fed the pressure being easured, and to the other side a proportional pressure; this is measured from the latimal cross section of a jet nozzle made in the form of a critical Venturi pipe and connected to an ejector suction line. Orig. art. has: 1 figure. [WA-98]	C NR. AP6035912 SOURCE CODE: UR/0413/6	6/000/020/0158/0158
TILE: Absolute-pressure regulator for a sealed aircraft cabin. Class 42, 5. 187420 DURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 158 PPIC TAGS: pressure compensator, pressure measurement, pressure regulation, ressure regulator, aircraft pressurization, aircraft cabin, aircraft pressurization, aircraft cabin, which contains pressure-drop and speed-of-change ckups (consistings of membranes with rigid centers connected valves for controlling the escape of air to the atmosphere) and an absolute-pressure pickup. To increase egulator reliability and simiplify its design, the absolute-pressure pickup is in the form of a spring-supported membrane; to one side is fed the pressure being easured, and to the other side a proportional pressure; this is measured from the laminal cross section of a jet nozzle made in the form of a critical Venturi pipe	IVENTOR: Kogan, P. A.; Yakushin, A. N.	
DURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 158 PPIC TAGS: pressure compensator, pressure measurement, pressure regulation, ressure regulator, sircraft pressurization, and of testin equipment BSTRACT: An Author Certificate has been issued for an absolute-pressure regulator or a sealed aircraft cabin, which contains pressure-drop and speed-of-change lickups (consistings of membranes with rigid centers connected valves for controlling ne escape of air to the atmosphere) and an absolute-pressure pickup. To increase egulator reliability and simiplify its design, the absolute-pressure pickup is in the form of a spring-supported membrane; to one side is fed the pressure being easured, and to the other side a proportional pressure; this is measured from the limital cross section of a jet nozzle made in the form of a critical Venturi pipe	(G: none	
OPIC TACS: pressure compensator, pressure measurement, pressure regulation, ressure regulator, aircraft pressurization, aircraft cabin, aircraft pressure as been issued for an absolute-pressure regulator or a sealed aircraft cabin, which contains pressure-drop and speed-of-change lockups (consistings of membranes with rigid centers connected valves for controlling the escape of air to the atmosphere) and an absolute-pressure pickup. To increase equiator reliability and simiplify its design, the absolute-pressure pickup is in the form of a spring-supported membrane; to one side is fed the pressure being easured, and to the other side a proportional pressure; this is measured from the limital cross section of a jet nozzle made in the form of a critical Venturi pipe	TLE: Absolute-pressure regulator for a sealed aircraft cab	in. Class 42,
SSTRACT: An Author Certificate has been issued for an absolute-pressure regulator or a sealed aircraft cabin, which contains pressure-drop and speed-of-change lockups (consistings of membranes with rigid centers connected valves for controlling the escape of air to the atmosphere) and an absolute-pressure pickup. To increase egulator reliability and simiplify its design, the absolute-pressure pickup is in the form of a spring-supported membrane; to one side is fed the pressure being easured, and to the other side a proportional pressure; this is measured from the limital cross section of a jet nozzle made in the form of a critical Venturi pipe	NRCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye zna	ki, no. 20, 1966, 158
cr a sealed aircraft cabin, which contains pressure-drop and speed-of-change lockups (consistings of membranes with rigid centers connected valves for controlling ne escape of air to the atmosphere) and an absolute-pressure pickup. To increase egulator reliability and simiplify its design, the absolute-pressure pickup is in the form of a spring-supported membrane; to one side is fed the pressure being easured, and to the other side a proportional pressure; this is measured from the lambda cross section of a jet nozzle made in the form of a critical Venturi pipe	PIC TAGS: pressure compensator, pressure measurement, pressure regulator, aircraft pressurization, aircraft crimes	sure regulation,
	or a sealed aircraft cabin, which contains pressure-drop and ckups (consistings of membranes with rigid centers connected escape of air to the atmosphere) and an absolute-pressure gulator reliability and simiplify its design, the absolute-le form of a spring-supported membrane; to one side is fed the assured, and to the other side a proportional pressure; this mimal cross section of a jet nozzle made in the form of a c	speed-of-change d valves for controlling pickup. To increase pressure pickup is in ne pressure being is measured from the ritical Venturi pipe
DB CODE: 01, 14/ SUBM DATE: 06Feb65	d1/1	

ACC NR. AP6035838

A) 80

BOURCE CODE: UR/0413/66/000/020/0042/0042

INVENTOR: Kogan, P. A.; Nikulin, V. K.; Yakushin, A. N.

ORG: None

TITLE: Turbofan assembly with grease-packed bearings. Class 17, No. 187045

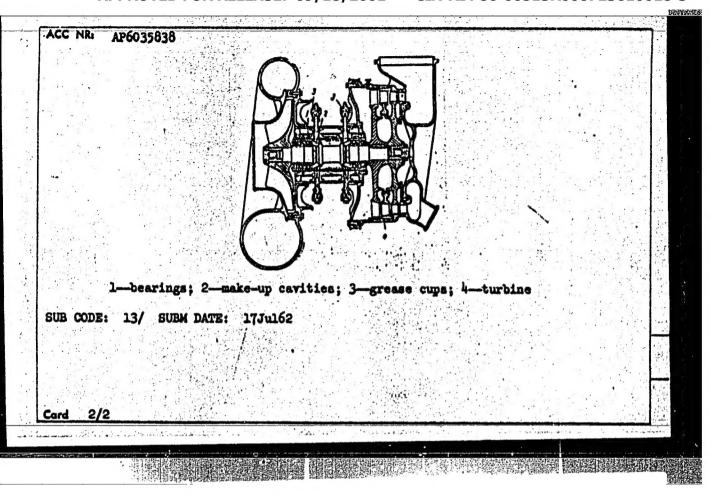
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 42

TOPIC TAGS: antifriction bearing, industrial blower, grease, turbine

ABSTRACT: This Author's Certificate introduces: 1. A turbofan assembly with grease-packed bearings. The unit consists of a two-stage turbine mounted on a common shaft with a blower impeller. The weight and overall dimensions of the installation are reduced while simultaneously increasing the rotational velocity by using grease-packed antifriction bearings with the inner protective ring removed. The bearings have auxiliary lubrication make-up cavities in the housing and cups for adding grease. A water heat exchanger is built into the housing of the bearings. 2. A modification of this assembly in which remanent disbalance (radial dynamic loading) is reduced by using a one-piece housing for the two-stage turbine with a suspended diaphragm between the turbine discs.

Card 1/2

UDC: 621.572/576 629.13.01/06



KOGAN, Petr Khaskelevich; ASTASHKEVICH, B.M., kand. tekhm.nauk, retsenzent; HATIOVSKII, H.G., red.; USENKO, L.A., tekhm. red.

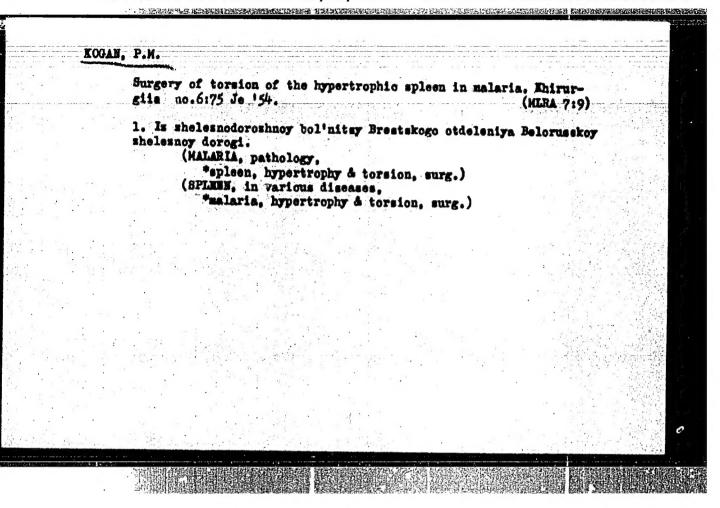
[Electrochemical methods for processing the aluminum parts of passenger cars; practices of the car barn of the Kiev Station

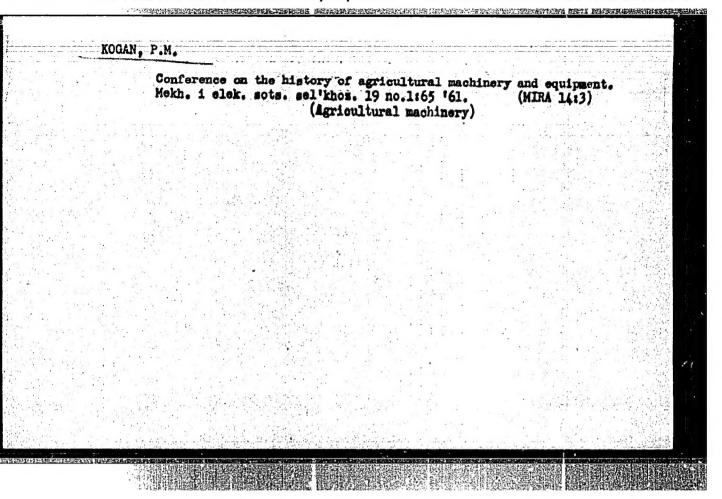
[Electrochemical methods for processing the aluminum parts of passenger cars; practices of the car barn of the Kiev Station of the Southwest Railroad] Elektrokhimicheskie sposoby obrabotki aliuminievykh detalei passashirskikh vagonov; opyt vagonogo depo stantsii Kiev IUgo-Zapadnoi dorogi. Moskva, Vses.

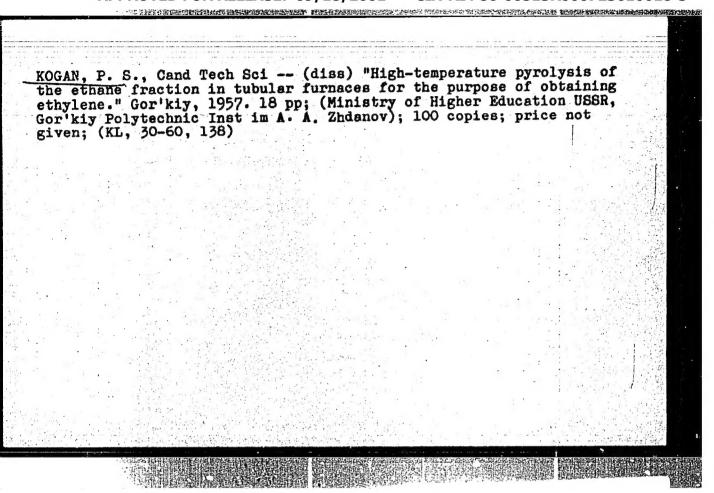
izdatel sko-poligr.ob edinenie M-va putei soobshcheniia, 1961.

(MIRA 15:1)

(Railroads—Cars—Maintenance and repair)







KOGAN,

AUTHORS:

Kogan, P. S. and Potolovskiy, L. A. 65-1-6/14

TITLE:

High Temperature Pyrolysis of Ethane Fractions to Obtain Ethylene. (Vysokotemperaturnyy piroliz etanovoy fraktsii s tsel'yu polucheniya etilena).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr. 1. pp. 25-32.

(USSR).

ABSTRACT:

Experiments were carried out to ascertain optimal conditions for the pyrolysis of an ethane fraction (which was separated from the gases obtained during the pyroly-sis of kerosene at temperatures varying between 800°C -950°C and at atmospheric pressure) in order to achieve maximum yields of ethylene. The influence of the metal of the tube furnace on the processes of pyrolysis and coke formation as well as the influence of concentration of the propylene and ethane fractions on the degree of conversion of ethane and the yield of ethylene were also investigated. The experiments were carried out on a continuous flow laboratory apparatus. The reaction tubes were made of quartz, chrome-nickel steel 3917 (17.3% Or, 10.2%Ni) and iron-chrome-aluminium alloy No.2 (23-27% Cr., 4.5-7% Al). The experiments in the quartz tubes were carried out to obtain a standard for comparing

Card 1/4

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3" High Temperature Pyrolysis of Ethane Fractions to Obtain Ethylene.

the catalytic action of the metal of the tubes on the pyrolysis process. A diagram of an experimental apparatus is shown in Fig.1. The tests were carried cut at 800°C, 830°C and 900°C, and varying residence times of the products in the reaction zone. For each of the given temperatures the optimal time of maintaining the products in the reaction zone were established and the rate of supply of the ethane fraction at which the highest yield of ethylene could be obtained. Data on the composition of the pyrolysis gases and yields of ethylene at optimal residence times of the products in the reaction zone for each temperature are given in Table 1, which shows that by increasing the temperature of the pyrolysis from 800°C to 900°C the degree of conversion of ethane increases from 64.7% to 73.6% and the concentration of ethylene in the pyrolysis gases increases from 34% to 37.8%/volume. The yield of ethylene for the circulated fraction increases from 51.7% to 62%. Results obtained when carrying out the pyrolysis in a tube made of alloy No.2 show that at 950°C and at an optimal residence time of 0.017 seconds the degree of conversion of ethane increases up to 87.2% and the

Card 2/4

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-20513R900723610018-High Temperature Pyrolysis of Ethane Fractions RDP86-20513R900723610018-

yield of ethylene constitutes 62.4 for every 100 litre of processed ethane fraction. Acetylene is also formed in considerable quantities. The residence time of 0.017 seconds causes certain difficulties with regard to heating conditions. The optimal conditions for the pyrolysis of the ethane in tube furnaces have been found to occur at 90000 and a residence time of 0.06 - 0.07 seconds. The tests in the quartz tubes and in the tubes made of alloy No.2 were carried out for one hour and in the chrome-nickel-steel tubes for less than an hour. Table 1 indicates that in the initial stages of the thermal pyrolyis of the ethane fractions, before the inner surface of the reaction tube becomes covered with coke, the material of the metal tubes acts as a catalyst. The catalytic action of the iron-chromealuminium alloy No.2 is considerably smaller than that of chrome-nickel steel. In the chrome-nickel tube, at the considerably lower rate of conversion of ethane (54.4%), the yield of ethylene is 50.5%, the yield of coke is 10.4% calculated on the used fraction. The catalytic action of the investigated materials of the reaction tubes is shown by the increased rate of de-

Card 3/4

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80V/65-58-12-5/18

AUTHORS:

Kogan, P. S. and Potolovskiy, L. A.

TITIE:

The Effect of Water Vapour on the Pyrolysis of an Industrial Ethane Fraction When Preparing Ethylene (Izucheniye vliyaniya vodyanogo para na piroliz tekhnicheskoy etanovoy fraktsii s tsel'yu polucheniya etilena)

PERIODICAL:

Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 12, pp 22 - 26 (USBR)

ABSTRACT:

These investigations were carried out at 900°C, the residence time in the reaction zone being 0.953-0.058 seconds and at atmospheric pressure. The following ratios were determined: sthane fraction:water vapour equalled 1:0.05; 1:0.1; 1:0.25 and 1:0.5. The tests were carried out on a laboratory apparatus in a reaction tube which was made of the iron-chrome-aluminium alloy No.2. The reaction tube had a diameter of 12 mm and its length equalled 900 mm. This was placed into a horizontal tube kiln containing elements made of the same alloy. The apparatus, method of analysis of the initial fraction and of the pyrolysis gases etc. were described by P. S. Kogan (Ref.11).

Card 1/3

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

Fraction When Preparing Ethylene

SOV/65-58-12-5/16
The Effect of Water Vapour on the Pyrolysis of an Industrial Ethane

The effect of the amount of water vapour on the degree of conversion of ethane is shown in Table 1, and the effect of the water vapour on the yield of ethylene and the composition of the pyrolysis gases in Figs. I and 2. In these two figures it is also shown that when the ratio vapour-ethane fraction equals 0.05:0.1 the concentration of ethylene in gases does practically not change in comparison to the pyrolysis without water vapour and equals approximately 35% of the volume. On increasing this ratio the concentration of ethylene decreases to 29% of the volume, the content of carbon monoxide increases from 0.2 to 5.51% and of hydrogen from 40 to 45.9%. The acetylene content remains practically constant. Further experiments were carried out when the ratio of vapour esthane fraction equalled 0.25: & 0.5. These experiments were carried out to decrease the coke formation. Data on the effect of water vapour on coke formation is given in Table 2. The yield of coke is decreased from 0.99 to 0.09%. The dependence of these results on the length of the experiment was tested

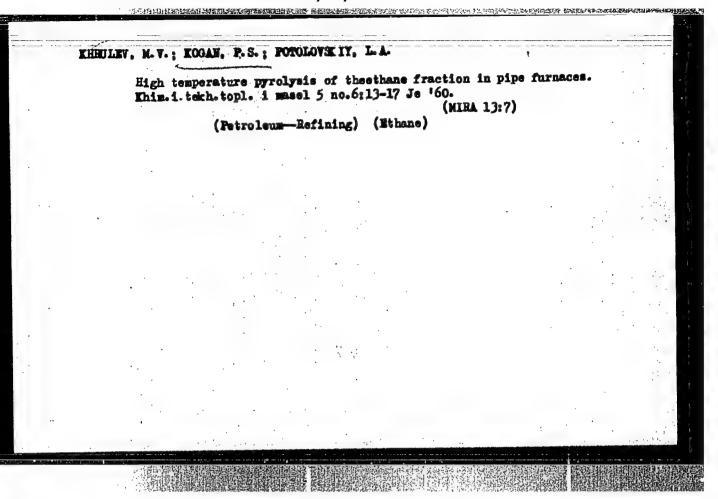
Card 2/3

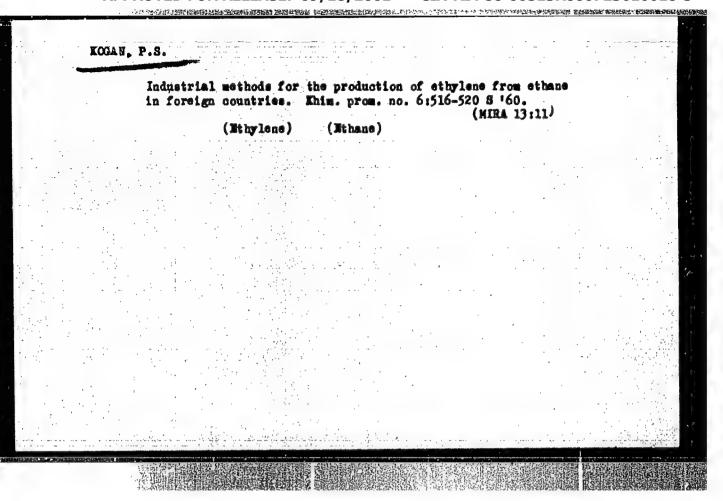
Card 3/3

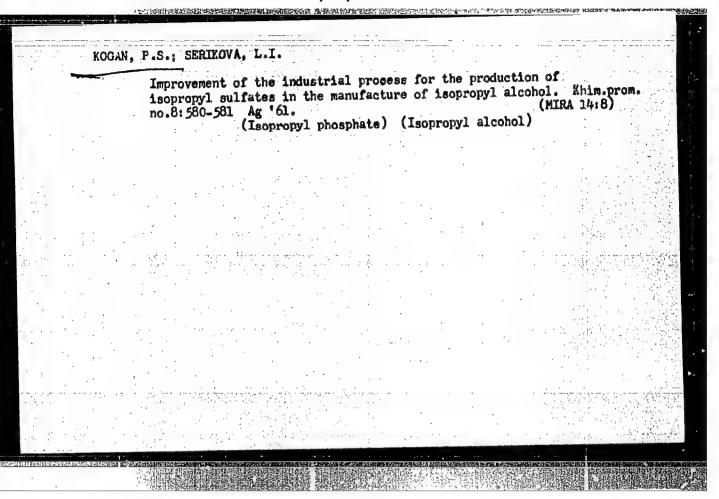
The Effect of Water Vapour on the Pyrolysis of an Industrial Ethane Fraction When Preparing Ethylene

(Table 3) and it can be observed that the composition of the pyrolysis gases and the yield of ethylene are only slightly affected and remain practically constant. There are 3 Tables, 2 Figures and 12 References: 1 Belgium, 4 English, 3 German and 4 Soviet.

KOGAN	7, P.S.	
	Intensification of furnaces used for the pyrolysis of petroleum products. Khim.prom. no.7:634-635 O-N '59. (NIRA 13:5) (Petroleum refineriesEquipment and supplies)	
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S/064/61/000/011/003/007 B110/B101

AUTHORS:

Sanina, N. L., Kogan, P. S., Kazarnovskiy, S. N.

TITLE:

Selective hydrogenation of acetylene compounds in the butylene - divinyl fraction of pyrolysis gases from petroleum products

PERIODICAL: Khimicheskaya promyshlennost', no. 11, 1961, 60 - 62

TEXT: The conditions for a continuous selective hydrogenation of acetylene hydrocarbons contained in the industrial butylene - divinyl fraction (C₄) of pyrolysis gases from petroleum products on a stable Ni catalyst were studied. The authors used electrolytic hydrogen and gas containing 43 - 83 mg/m³ of H₂S and 130 - 200 mg/m³ of CO₂ (% by volume) which consisted of n-butylene 32 - 42, isobutylene 29 - 35, divinyl 10 - 17, propylene 0.5 - 5, C₅ and higher hydrocarbons 8 - 11, acetylene compounds 0.04 - 0.14, and a H - kieselguhr catalyst (3.5.3.5 mm tablets). The temperature in the 200-ml hydrogenation column, a steel tube 700 mm long, temperature in the 200-ml hydrogenation column, a steel tube 700 mm long, Card 1/4

S/064/61/000/011/003/007 B110/B101

Selective hydrogenation of ...

The H₂ pressure was 70 - 100 mm Hg. Before and after hydrogenation, unsaturated compounds in the fraction were determined by 1% Br₂ dissolved in KBr, acetylenes were determined according to C. K. Chavastelon (Compt. rend., 125, 245 (1897)), and divinyl was volume-chromatographically determined. A maximum degree of hydrogenation occurs in the first four reaction hours with a regenerated catalyst since the latter still contains hydrogen absorbed during the reduction. In the second period, the hydrogenation degree remains constant. Then, it decreases since the catalyst is gradually poisoned. With an 83 mg/m³ content of H₂S in C₄, acetylenes with increased H₂ concentrations were hydrogenated more intensively than divinyl; butylenes, however, were not hydrogenated. With a fraction containing 0.077 - 0.082% by volume of acetylene derivatives, highest selectivity is reached with a C₄ rate of 0.5 hr⁻¹ and a hydrogen - acetylene ratio of 10 - 13: 1. Hydrogenation of acetylenes reaches 90%, that of divinyl N8% which meets requirements of the synthetic rubber industry. With a hydrogen - acetylene ratio of 10: 1, the degree of

Card 2/4

S/064/61/000/011/003/007 B110/B101

Selective hydrogenation of ...

hydrogenation drops from 89 to 26.5% as the rate of C₄ supply increases from 0.5 to 1.5 hr⁻¹. The H₂S sensitivity of the Ni catalyst depends on temperature, pressure, H₂ concentration, and the formation and dispersion degree of the catalyst. The butylene fraction contained 43 - 83 mg/m³ of H₂S. Hydrogenation was conducted at -10 to -15°C, atmospheric pressure, C₄ supply of 2.0 hr⁻¹, and a hydrogen - acetylene compounds ratio of 10:1. The authors used fractions with (a) 83.0 mg/m³ of H₂S (unpurified), (b) 10.1 mg/m³ of H₂S (purified in 5% NaOH solution), and (c) 1.7 mg/m³ of H₂S (purified in 0.5% NaOH and 5% lead acetate solution). With (c), the catalyst activity first remained constant at 98 - 83% for 20 hr, then dropped to 67.6% within the next 5 hr. With (a), the activity dropped to 68.0% after the first 4 hr. Since catalyst poisoning is reversible, its original activity can be restored. With a 0.5 hr⁻¹ rate of supply, optimum for selectivity, acetylene hydrogenation remained constant at ~90% for 39 hr with an H₂S content of 83 mg/m³. Thus, an H₂S content of the C₄ Card 3/4

Selective hydrogenation of ...

8/064/61/000/011/003/007 B110/B101

fraction < 83 mg/m³ is admissible under these conditions. There are 4 figures, 1 table, and 17 references: 12 Soviet and 5 non-Soviet. The three references to English-language publications read as follows: G. Hebbard, W. Hunt, US Patent 2359759, 1944; Ch. Welling, H. Hepp, US Patent 2379670, 1945; T. Beuer, US Patent 2391004, 1945.

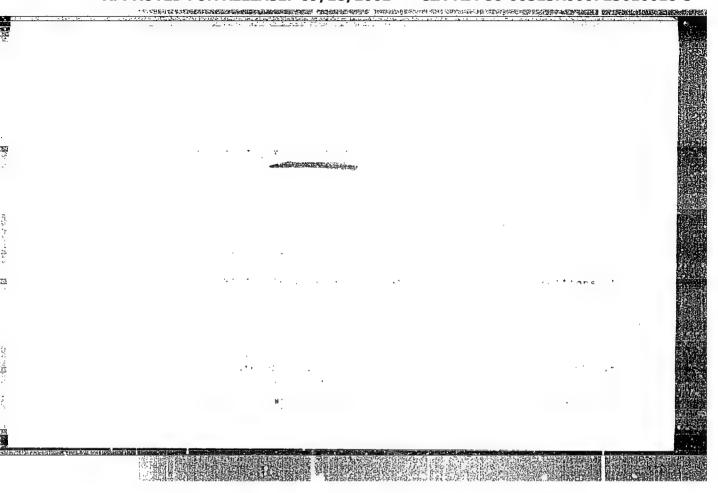
Card 4/4

Selective hydrogenation of acetylenic compounds in the butylenehivinyl fraction of gases from the pyrolysis of petroleum products.

(him, prem. no.11:802-804 N '61.

(Butadiess) (Rydrogenation)

(Petroleum producta)



APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

SUBBOTIN, A.I., KOQAN, P.S.; KAZARNOVSKIY, S.N.

Pyrolysis of the butylene fraction in the presence of oxygen.
Khim.i tekh.topl.i masel 7 no.8:1-6 Ag '62. (MIRA 15:8)

1. Gor'kovskiy politekhnicheskiy institut im. Zhdanova.
(Hydrocarbons) (Pyrolysis) (Butene)

3/081/62/000/024/008/052 B117/B186

AUTHORS: Subbotin, A. I., Kogan, P. S., Kazarnovskiy, S. N.

TITLE: High-temperature pyrolysis of butane - butylene fraction for the simultaneous production of acetylene and ethylene

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 723, abstract 24M202 (Gaz. prom-st', no. 6, 1962, 49 - 53)

TEXT: Pyrolysis of commercial butane - butylene fraction separated from gases obtained by pyrolysis of light petroleum products was conducted at a lab plant, using a quartz tube of 2-2.5 mm diameter as a reaction vessel. Pyrolysis was conducted at 1050, 1200, 1300, and 1400°C and at a pressure of 60-180 mm Hg in the presence of 0_2 (volume ratio 0_2 : fraction = 0.1-0.2). The fraction was diluted (2:1) with electrolytic H₂, not used up during the pyrolysis, to reduce the formation of carbon black and tar. Results: The optimum time during which the gas was kept in the reaction zone and which yielded a maximum amount of C_2H_2 (I) was found to be closely related with specific pyrolysis temperatures. At the Card 1/2

High-temperature pyrolysis of ...

S/081/62/000/024/008/052 B117/B186

above pyrolysis temperatures, $C_{2}H_{4}$ (II) forms sconer than (I); and a maximum amount of (II) is reached after a shorter time of contact than required for maximum yields of (I). If the contact time exceeds the optimum for (II), its concentration decreases, the content of (I) in the pyrolysis gas increasing simultaneously. The maximum yield of (I) was 59.2 % by volume, and the total yield of (I) and (II) was 79.4 % by volume, both obtained from the fraction which was passed through at 1400°C and stayed in the reaction zone for 0.0013 sec. Thereby, the content of (I) in the pyrolysis gas was 15.6 % by volume and that of (II) was 5.3 %. [Abstracter's note: Complete translation.]

Card 2/2

KOGAN, P.S., SANINA, N.L.; KAZARNOVSKIY, S.N.; Prinimali uchastiye:

SEDOW, M.P.; KVASOV, A.A.

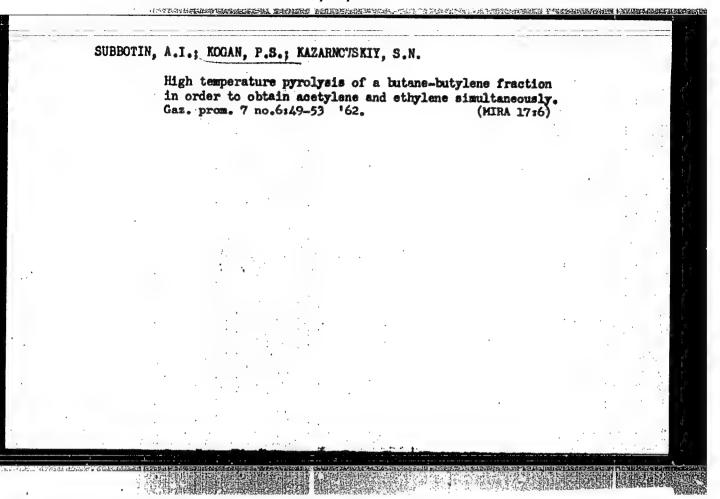
Removal of acetylenic compounds from the butylene-bivinyl fraction of gases of petroleum product pyrolysis by the methode of selective hydrogenation. Khim.prom. no.10:717-719

O 162.

(Olefins)

(Acetylene compounds)

(Petroleum—Refining)



ACCESSION NR: AT4010610

\$/3051/63/000/000/0054/0060

AUTHOR: Sanina, N. L.; Kogan, P. S.; Kazarnovskiy, S. N.

TITLE: Hydrogenation of acetylenic compounds and divinyl in the butylenedivinyl fraction of the pyrolytic gases from petroleum products

SOURCE: Kataliticheskiye reaktsii v zhidkoy faze. Trudy* Vsesoyuznoy konferentsii. Alma-Ata, 1963, 54-60

TOPIC TAGS: hydrogenation, catalytic hydrogenation, acetylene, divinyl, pyrolysis, pyrolytic gas, petroleum pyrolysis, hydrogen sulfide, nickel kieselguhr hydrogenation catalyst

ABSTRACT: Using a Ni-kieselguhr catalyst, the authors studied the hydrogenation of the liquid C_L fraction of the gases from the pyrolysis of petroleum products, containing 61-77% butylene, 10-17% divinyl, 8-16% C_3 - C_5 and higher hydrocarbons and 0.14% acetylenic compounds by volume, in order to determine the effect of the flow rate, hydrogen concentration, duration of service of the catalyst, and admixtures of H₂S (43-83 mg/m³) and CO₂ (130-200 mg/m³) on the selectivity and vigor of the hydrogenation of acetylenic compounds and divinyl. Hydrogenation was carried out by the flow method, either under laboratory conditions or on a pilot plant scale. The results showed that the degree of hydrogenation of acetylenic compounds and 1/2

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

ACCESSION NR: AT4010610

Increased with the relative volumes of hydrogen and substrate, while the hydrogenation of divinyl remained unchanged; depending on the flow rate, up to 90% of the acetylenes and 8% of the divinyl present in the C4 fraction underwent hydrogena-tion. The presence of 83 mg/m³ of H₂S was found to reduce the percentage of the acetylenic compounds hydrogenated to 38% after 11.5 hours of operation, but the percentage was increased rapidly by rejuvenation of the catalyst with hydrogen. The yield of hydrogenated acetylenes was not affected when hydrogen was replaced by a methane-hydrogen mixture. In a more detailed study of the mechanism of hydrogenation of mixtures of divinyl and vinylacetylene, the authors studied the hydrogenation of 88% divinyl and 12% n-butylenes in the presence of nickel-kieselguhr and determined the potential of the catalyst along with the kinetics and selectivity of hydrogenation. The catalyst potential was found to vary markedly, but analysis of the products showed preferential hydrogenation of vinylacetylene in the presence of a large excess of divinyl. Orig. art. has: 4 figures.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnic institute

SUBMITTED:

DATE ACQ: 25Jan64

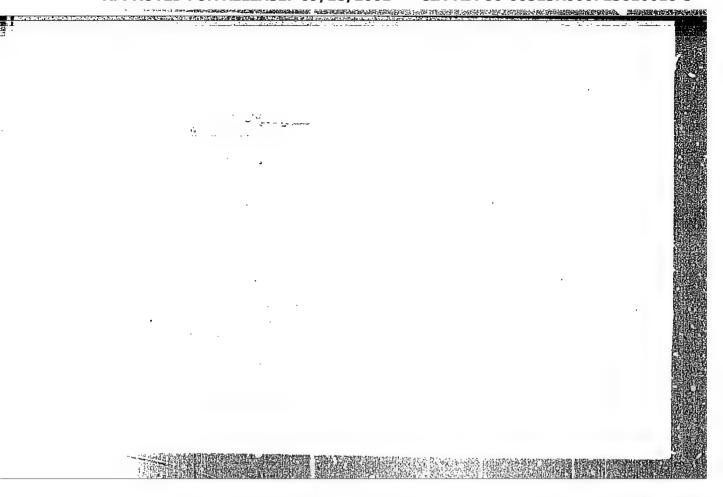
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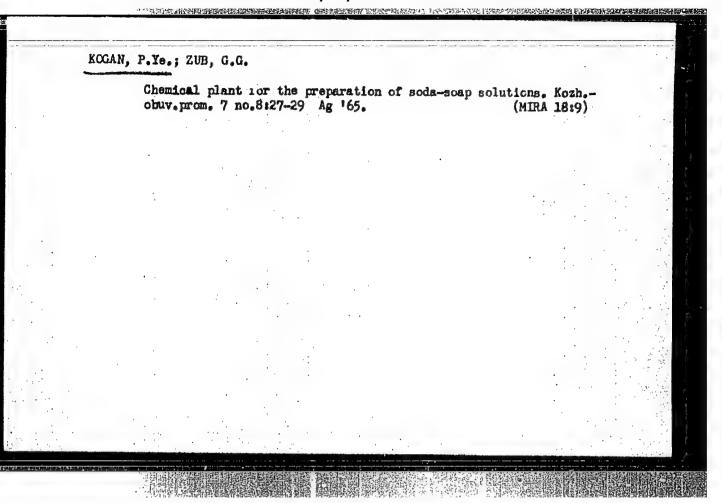
NO REF SOV: 008

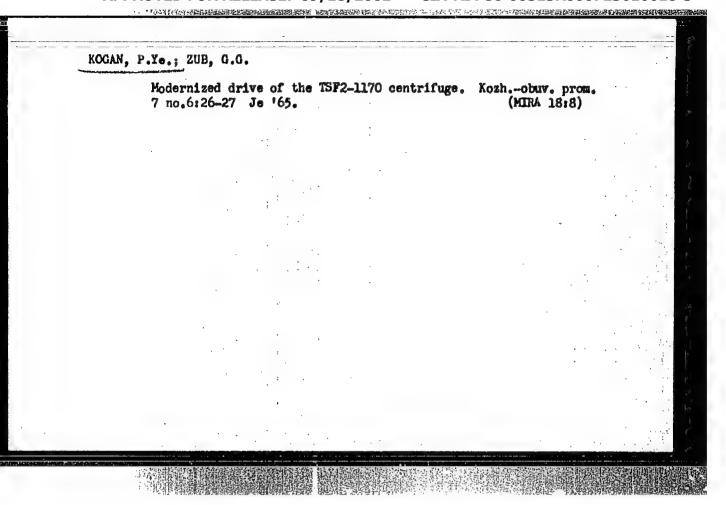
OTHER:

Card

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"







BRAGINSKIY, M.A., inzh.; GISIN, B.I., inzh.; KOGAN, P.Ye., inzh.

Continuous samming machine for sheep pelts. Nauch.-issl.trudy
Ukr NIIKP no.13:107-113 162. (MIRA 18:2)

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

ROGAN, P.Yu.; KHMEL'HITSKAYA, R.S. [Khmel'nyts'ka, R.S.]

Production has to be of sxcellent quality. Lep.prom. no.3:65-66 Je - Ag (MIRA 16:2)

1. Khar'kovskaya mekhovaya fabrika No.1. (Kharkov-Fur)

KOGAN, R.A., inzh.; LETTES, L.V., inzh.

Armored bridging reactors. Vest.elektroprom. 33 no.1:38-41
Ja '62. (Klectric reactors)

BARMOTINA, Z.G.; DUSHSKAYA, R.Ye.; KOGAN, R.B.; KOMAR', Ye.P.;
KOMOHERKO, A.F.; ORLOVA, R.S.

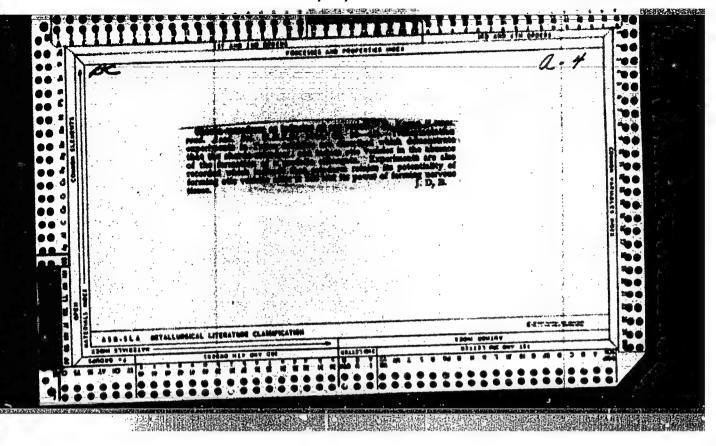
Analysis of chromites. Trudy Ukr.nauch.-issl.inst.met.
no.5:264-272 '59.
(Chromites) (Metallurgical analysis)

(Chromites) (Metallurgical analysis)

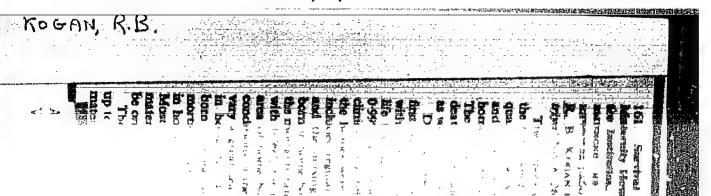
KCGAN, R.

"The Structure Of Lateral Embryos Of Triton Taeniatus As Seen In Oblique Sections Through The Early Gastrula. Laboratory Of The Mechanics Of Development (Chief: Frof. G. A. Shmidt) All-Union Institute Of Experimental Fedicine, Moscov. (p. 177) by Kogan, M.

So: FREDUCESCOR OF JOURNAL OF GENERAL BIOLOGY. (Biologicheskii Zhurnal) Vol. VII, 1:38 No. 1



Kogan, R. B. "Premature infants' mortality rate," Trudy VI Vsesoyuz. s'yezda det. vrachoy, posvyashch. pamyati prof. Filatova, Moscow, 1948, p. 124-25
SO: U-3264, 10 April 1953, (Lotopis 'Zhurnal 'nykh Statey, No. 3, 1949)



AUGAN, R. B., Dr.

USSR/Medicine - Infectious Diseases Mar/Apr 52

"Joint Meeting of the Moscow Society of Pediatrists and the Moscow Department (Otdel) of Public Health Devoted to Gastrointestinal Diseases, 10, 11 May 1951," S. Shapiro

"Pediatriya" No 2. pp 71-74

In 1950, USSR scientists succeeded in producing exptl dysentery in monkeys (which are resistant to Flexner bacilli) with Sonne bacilli; type-sup immunity in dysentery does not detract from the importance of the problem of immunization, because only Flexner bacilli and Sonne bacilli (the latter since World War II) cause the disease in the USSR [2] the problem of preserving Sonne bacilli in the immunogenic form has been solved; the enteral method of immunization against dysentery is the most promising (Prof V. L. Troitskiy, Corr Mem, Acad Med Sci USSR). Extensive expts demonstrated that treatment of dysentery of children with bacteriophage is without effect (R. B. Kogan. Dr. Med Sci, Inst Pediatry, Acad Med Sci USSR). In regard to the effect of antibiotics in dysentery, IEM-1 acts on the intestinal syndrome and should be applied in light and medium forms of the disease; synthomycin is effective in acute and toxic forms; albomycin acts on staphylococci causing complications (N.I. Vorotyntseva, Inst of Pediatry, Acad Med Sci USSR).

PA 207T62

KOGAN, E., dotsent

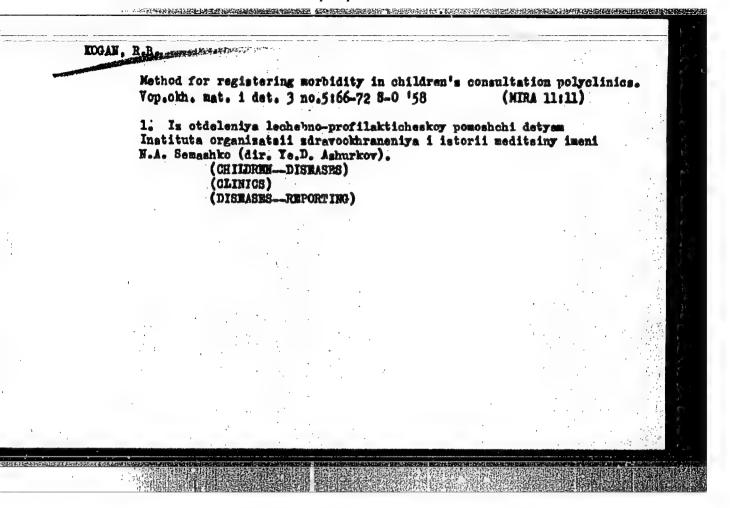
Physical development of children during their first year of life according to data from examinations made in Moscow in 1956.

Pediatria no.8:67-75 Ag *57. (MIRA 10:12)

1. Is Institute pediatrii AM SSSR (dir. - chlen-korrespondent AMM SSSR prof. O.D.Sokolova-Ponomareva)

(MOSCOM--CHILDREN--GROWTH)

ECOAH, R.B. Imbolism of the right femoral artery as a complication of hysterectomy, Akush. i gin. 33 no.2:111-112 Mr-Ap '57. (MLEA 10:6) 1. Is ginekologicheskogo otdeleniys (zav. R.B.Kogan) rodil'nogo dome g.Horil'ska (glavnyy vrach K.V.Samoylova). (HISTERECTOM; compl. embolism in right femoral artery) (IMBOLISM, stale, and pathogen. hysterectomy; causing embolism of right femoral artery) (ARTHRIES, FEMORAL; dis. embolism, caused by hysterectomy)



KOGAN, R.B., dotsent, BIRYUKOVICH, A.A., kand.med.nauk, POPOVA, A.A.

Organization of rural prophylactic observation of nursing infants. Sov.zdrav. 17 no.6:29-34 Je '58 (MIRA 11:6)

l. Is Instituta organizatsii sdravookhranbniya i istorii meditsiny (dir. Ye.D. Ashurkov) i Instituta pediatrii (dir. - prof. O.D. Sokolova-Ponomareva) AMM SSSR.

(RURAL CONDITIONS
organis. of prophylactic care for nursing inf.
in rural cond. (Rus))
(CHILD WELFARE
same)

KOOAH, R.B., dots.

Physical development of two-to-three-year-old children. Pediatria (MIRA 11:3)

1. Is organizateionno-metodicheskogo otdela instituta pediatrii AMN SBSH (dir.-prof. U.D.Sokolova-Ponomareva)

(MOSCOW--CHILDREN--GROWTH)

KOGAN, R.B., dotsent (Moskva)

Changes in the morbidity of children in Moscow; according to data from selective investigations during 1951-53 and 1956. Sov. zdrav.

18 no.9:25-32 159. (MIRA 12:11)

1. Is otdeleniya lechebno-profilakticheskoy pomoshchi detyam Instituta organizatsii adravookhraneniya i istorii meditsiny imeni M.A. Semash-ko (dir. Ye.D. Ashurkov).

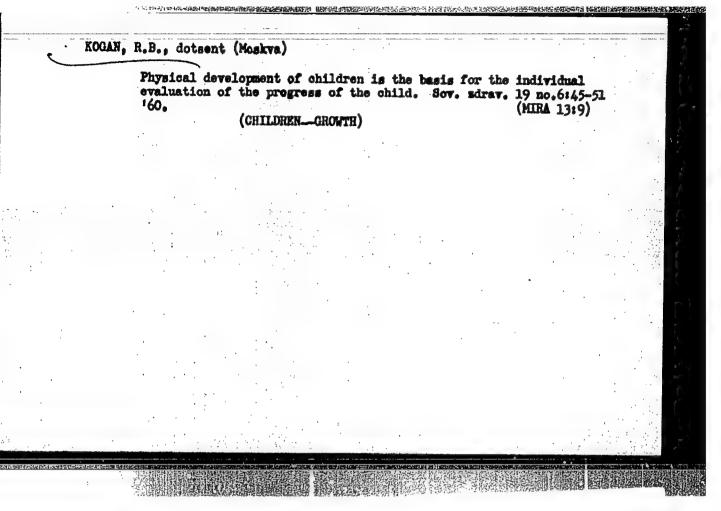
(PEDIATRIC DISEASES statist.)

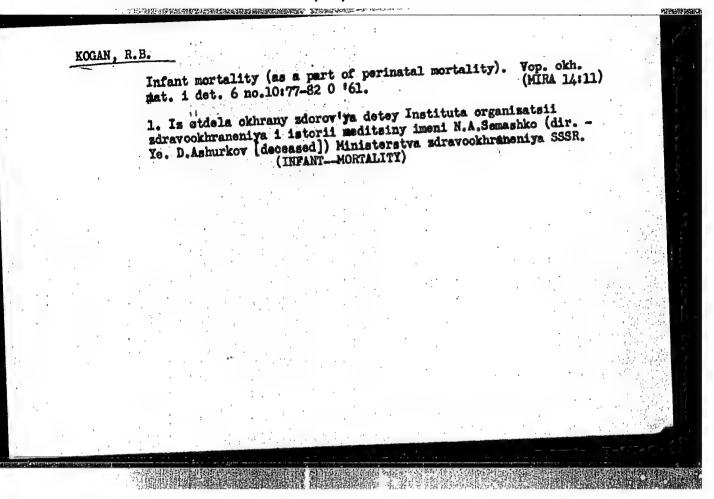
11.1分配性性的现代性能的现代中国的影响的影响,但是不能能够可能的心态,但是是一个人,心态,心态,也是这种,这种心态,这种心态,是是是是这种的种种的,但是是这种

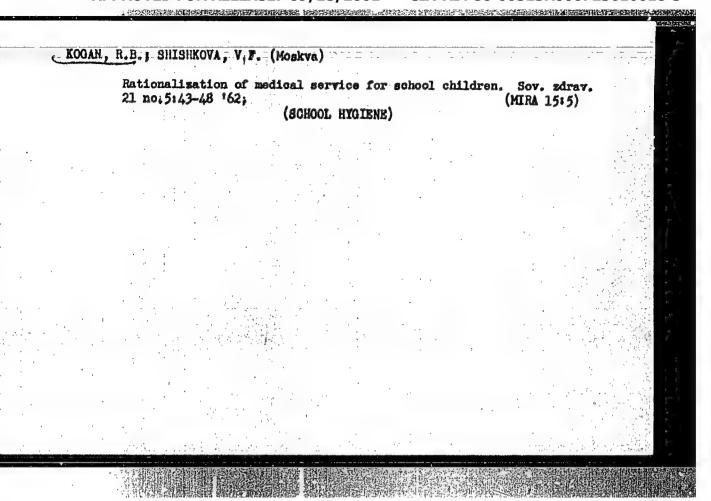
KOGAN, R.B., dotsent Some remarks on I.A. Arshavskii's article, "Physiological basis

for the classification of newborn infants according to indexes of maturity and immaturity. Vop. okh. mat. i det. 5 no. 5:76-79 S-0 160. (MIRA 13:10)

1. Iz Instituta organizatsii zdravcokhraneniya i istorii meditsiny imeni E.A. Semashko (dir. Ye.D. Ashurkov).
(INFANTS (NEWBORN))







MOGAN, R.B., dotsent; LITVINOVA, M.G. (Moskva)

Determination of the need for specialized care for children. Sov. (MIRA 15:11)

(PEDIATRICS)

KVIRIKADZE, V.V., starshiy nauchnyy sotrudnik; KOGAN, R.D., klimicheskiy ordinator

Effect of reserpine on phagocytosis. Trudy Gos.nauch-issl. inst.psikh. 25:737-744 '61. (MIRA 15:12)

1. Mikrobiologicheskaya laboratoriya (sav. - kand.med.nauk V.V.Kvirikadze) i klinika sosudistykh psikhozov (zav. - prof. V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR. (RESERPINE) (PHACOCYTOSIS)

KVIRIKADZE, V.V.; MENDELEYEVA, M.A.; PKHALADZE, O.G.; KOGAN, R.D.

Effect of aminazine on the the concentration of specific typhoid fever antibodies in the bodies of rabbits. Trudy Gos.nauch.issl.inst.psikh. 27:261-266 '61. (MIRA 15:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut psikhiatrii Ministerstva zdravookhraneniya RSFSR. Dir. - prof. V.M.Banshchikov. Mikrobiologicheskaya laboratoriya. Zav. - kand.med.nauk V.V. Kvirikadze.

(CHLORPROMAZINE) (ANTIGENS AND ANTIBODIES)
(TYPHOID FEVER—PREVENTIVE INOCULATION)

EVIRIKADZE, V.V.; KOGAN, R.D. Study of the antimicrobic properties of tofranil; an experimental investigation. Trudy Cos., nauch.-issl.inst.psikh. 35:2240-2248 '62. (MIRA 16:2) 1. Otdeleniye immunologii (sav. otdeleniyem - kand.med.nauk V.V. Kvirikadse) Cosudarstvennogo nauchno-issledovatal'akogo instituta psikhiatrii. (IMIPRAMIN) (BAGTERIA, EFFECT OF DRUGS ON)

KOGAN, R.D.; KVIRIKADZE, V.V.; TABAKH, R.Ya.

Study of the antimicrobial properties of stelazine, Vop.klin., patog. i lech. shiz. no.l:70-71 '64. (MIRA 18:5)

1. Immunobiologichoskaya laboratoriya (zav. - kand.med.nauk v.v.kwirikadze) Gosudarstvennogo nauchno-issledovateliskogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.

THE REPORT OF THE PROPERTY OF SOURCE CODE: UR/0016/66/000/009/0081/0084 ACC NR: AP6032247 AUTHOR: Kvirikadze, V. V.; Kogan, R. D. ORG: Moscow Scientific Research Institute for Vaccine and Sera im. Mechnikov (Moskovskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok);. Scientific Research Institute for Psychiatry, Ministry of Health, RSFSR (Nauchnoissledovatel'skiy institut psichiatrii Ministerstva zdravookhraneniya RSFSR) TITLE: Using the passive hemagglutination reaction for serodiagnosis of toxoplasmosis infections SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1966, 81-84 TOPIC TAGS: medical security, hammedinest, toxoplasmosis, disease, diagnostic medicine Complement fixation and passive hemagglutination reactions for ABSTRACT: the serodiagnosis of toxoplasmosis were comapred. The simpler passive hemagglutination reaction correlated 100% with the complement fixation test and is recommended for diagnosis of [WA-50; CBE No. 12] this disease. SUB CODE: 06/ SUBM DATE: 27Jun65/ ORIG REF: 002/ OTH REF: 006/ IDC: 616.993.192-078.734 Card

ACC NRI AP6032247 SOURCE CODE: UR/0016/66/000/009/0081/0084 AUTHOR: Kvirikadze, V. V.; Kogan, R. D. ORG: Moscow Scientific Research Institute for Vaccine and Sera im. Mechnikov (Moskovskiy nauchno-issledovatel skiy institut vaktsin i syvorotok); Scientific Research Institute for Psychiatry, Ministry of Health, RSFSR (Nauchnoissledovatel skiy institut psikhiatril Ministerstva zdravookhraneniya RSFSR) TITLE: Using the passive hemagglutination reaction for serodiagnosis of toxoplasmosis infections \0 SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1966, 81-84 TOPIC TAGS: matical security, homen stars, toxoplasmosis, disease, diagnostic malicine ABSTRACT: Complement fixation and passive hemagglutination reactions for the serodiagnosis of toxoplasmosis were comapred. The simpler passive hemagglutination reaction correlated 100% with the complement fixation test and is recommended for diagnosis of [WA-50; CBE No. 12] this disease. SUBM DATE: 27Jun65/ ORIG REF: 002/ OTH REF: 006/ SUB CODE: 06/ UDC: 616.993.192-078.734 and the state of t

EYNIS, V.L.; TUGANOVA, V.Ye.; KOLOSOVSKAYA, V.P.; KOGAN, R.E.

Diagnosis in clinically cured pulmonary tuberculosis. Probl. tub.
(Al no.10:21-26 '63. (MIRA 17:9))

17(2)

SOV/177~58-9-15/51

AUTHORS:

Shul'zhenko, V.M., Colonel of the Medical Corps, Candidate of Medical Sciences; Enkler, Z.K.; Kuz'mina, Yu.T., Lieutenant-Colonel of the Medical Corps; and

Kogan, R.F.

TITLE:

The Study of the Etiological Characteristics of Dysentery

PERIODICAL:

Voyenno-meditsinskiy zhurnal, 1958, Nr 9, pp 53-55

(USSR)

ABSTRACT:

The article analyzes the data of the etiological structure of dysentery in soldiers, hospitalized in the years 1951/53, in the civilian population during the same years and in other soldiers. The changes in the etiological structure are given in tables. The author came to the following conclusions: 1) on the whole, the etiological characteristic of dysentery in soldiers who were treated in a hospital during 1951/53, corresponds with past data; 2) there is no epidemiological connection between soldiers and civilians who lived in the same town during 1951/53; 3) for a full epidemiological analysis of the structure of dysentery,

Card 1/2

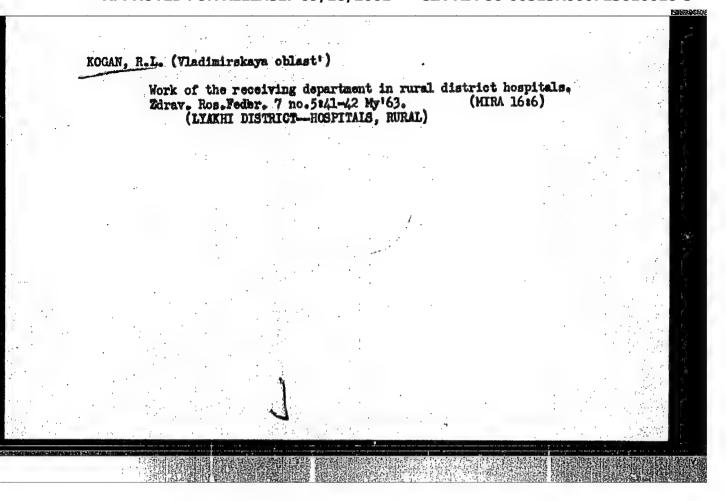
APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

SOV/177-58-11-15/50

The Diagnosis of Remote Sequela of Closed Injuries of the Cerebrum in the Practice of Experts and of Dispensaries

the diagnosis of remote sequela of closed cersoral injuries. Based on material of mass investigations (more than 5,000), the relative evaluation of the frequency of microsymptoms in persons, who sustained a closed cerebral injury in the past shows that the oculo-motor nerve is most frequently injured (70%). The author suggests a method according to which the person under investigation has to fix the eyes at a motionless subject for E-10 seconds in order to reveal the weakness of the muscles that innervate the oculo-motor nerves. In patients who sustained closed cranial traumas, the look declines from the fixing object to one side or the other. Thus, the symptom of a "defect of the fixation of the look" permits to recognize a cranial trauma before the anamnesis has been established. One case report is given.

Card 2/2



"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610018-3

PHARE I BOOK EXPLOITATION SOV/6025

Sovenchaniye po ustalosti metallov. 2nd., Hoscow, 1960.

Taiklichockaya prochnosti metallov, materially vtorogo sovenchaniya po ustalosti metallov, 24 - 27 maya 1950 g. (Cyalic Hotal Strength); Materialn of the Second Cenference on the Fatique of Metals, held May 24 - 27, 1960) Hoscow, Izd-vo All 385R, 1962.

338 p. Errata clip insorted. 2600 copies printed.

Resp. Ed.: I. A. Oding, Corresponding Hombor of the Academy of Sciences of the USSH; Ed. of Fublishing House: A. N. Chornov; Tech. Ed.: A. P. Gusova.

PURPOSE: This collection of articles is intended for scientific research workers and metallurgists.

COVERAGE: The collection contains papers presented and discussed at the second conference on fatigue of metals, which was held at the Institute of Motallurgy in Hay 1960. These papers deal with the nature of Tatigue fracture, the mechanism of formation Card 1/4.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610018-3

Cyclic Metal Strength (Cont.);

SOY/6025

and growth of fatigue cracks, the role of plastic deformation in fatigue fracture, an accelerated method of determining fatigue strength, the plotting of fatigue diagrams, and various fatigue test methods. New data are presented on the sensitivity of high-strength steel to stress concentration, the effect of stress concentration on the criterion of fatigue failure, the effect of the size factor on the strength of metal under cyclic loads, and results of endurance tests of various machine parts. Problems connected with cyclic metal toughness, internal friction, and the effect of corrosion media and temperature on the fatigue strength of metals are also discussed. No personalities are mentioned. Each article is accompanied by references, mostly Soviet.

TABLE OF CONTENTS:

NATURE OF PATIGUE FRACTURE

Oding, I. A. Diffusionless Mechanism of Formation and Growth of a Fatigue Grack Card 2/9

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

	Cyclic Metal Strength (Cont.) 807/6025		
. *	Ivanova, V. S. Structural-Energetic Theory of Metal Fatigue	11	
. !	Ysexolodov, G. N. On the Propagation of Satigue Cracks	24	
	Kudryavtsev, I. V. and N. M. Savvina. On the Causes of the Lowering of Steel Fatigue Strength in Contact Zones	31	
•	Ezlikh, L. B. Mechanism of Fatigue Fracture Under Contact Load	37	
	Lebedev, T. A. and I. Ye. Kolosov. Fatigue Test of Hardened Stoels	42	
:	Chernyak, N. I. On Prestrain-Induced Changes in Fatigue Strength of Steel	48	
	Kogan, R. L. Laws Governing Plastic Strain Propagation in Specimens Under Cyclic Bonding	54	
	Card 3/9		
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	The first of the second of the		قور : الانتخاص الحرار إمار المنتز الأردي المال والانزار . الرفسية المنتز الإرديالات الحرار المالي

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

5/180/62/000/003/008/016 B193/B192

AUTHOR:

Kogan, R.L.

TITLE:

A study of curves comprising a fatigue fracture

diagram '

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo;

no.3, 1962, 78-80

The results of several investigations have shown that fatigue fracture is preceded not only by the onset of brittleness and formation of microscopic cracks, but also by an increase in strength of the material. The object of the present investigation was to correlate these three processes. To this end a series of fatigue tests was carried out on Armco iron specimens (both smooth and notched) subjected to cyclic bending in a single plane. In addition to constructing the conventional S/N curve, the distribution of microhardness along the test piece was determined after each test followed by metallographic examination. data obtained in this manner are reproduced in Fig.1, where microhardness (Hu, kg/mm2) is plotted against the distance ((Card 1/5/

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3" A study of curves comprising a ...

S/180/62/000/003/008/016 E193/E192

from the fixed end of the specimen, tested to fracture at $N = 2.7 \times 10^5$ cycles under a stress of 25.2 kg/mm²; the horizontal, broken line represents the initial hardness, and the cross-hatched part of the diagram indicates the region in which slip lines were observed after fracture. Similar graphs were constructed for specimens tested under various stresses, and were used to determine the minimum values of stress at which both softening and hardening of the metal took place. The integrated results of these tests are reproduced in Fig. 2, showing the following curves, plotted (for smooth Armco iron specimens) in σ (kg/mm²)/log N (cycles) coordinates: 1 - the conventional fatigue curve; 2' - experimental curve representing the decrease in strength of the metal (circles indicate the values of o and N at which first slip lines appeared, crosses indicating the values at which hardness decreased below the initial level); 2 - a theoretical curve representing the formation of submicroscopic cracks; 3' - experimental curve representing the beginning of the increase in hardness of the metal; 3 - the same curve constructed on the basis of calculated values of $N_{\mathbf{k}}$ and β . Card 2/8

A study of curves comprising a ... 5/180/62/000/003/008/016 E193/E192

Abstractor's note: Nk is the number of cycles at which hardening takes place in a specimen tested under a stress equal to the cyclic elastic limit σ_e^U ; the meaning of β is not given]. Several conclusions were reached. 1) The experimental results of the present investigation are in good agreement with those obtained analytically with the aid of cyclic constants α , β and $N_{\mathbf{k}}$, calculated on the basis of the hypothesis of similarity between fatigue fracture and mechanism of melting of 2) On the basis of the new fatigue curve constructed by metals. the author and relating the increase in hardness to the stress and number of cycles, a new fatigue criterion has been postulated, namely, the critical number of cycles, Ny at which a metal subjected to fatigue under a stress equal to its fatigue limit begins to harden. 3) The new curve ("fatigue hardening" curve") can be constructed analytically from the calculated values of β and N_{k} , and can be used also to determine more accurately the optimum treatment (stress, number of cycles) applied to increase the fatigue limit of small, smooth test these optimum conditions are represented by points Card 3/#

A study of curves comprising a ... S/180/62/000/003/008/016
situated above the "fatigue hardening" curve, but below the curve representing the formation of submicroscopic cracks (i.e. between curves 2 and 3 in Fig. 2).
There are 3 figures.
SUBMITTED: May 20, 1961

Card 4/8 4

S/126/62/013/005/017/031 E193/E483

AUTHOR:

Kogan, R.L.

TITLE:

A microscope study of plastic deformation and

fracture of specimens subjected to cyclic bending in

one plane .

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.5, 1962,

750-754

The object of the present investigation was to study work-hardening and loss of strength of metals under cyclic loads. To this end, specimens of the shape shown in Fig.1 were subjected to cyclic bending in one plane, hardness measurements being taken after each test across the entire length of the fractured specimen, the assumption being that the manner in which hardness. of the most highly stressed region changed during the fatigue test could be inferred from these data which were supplemented by metallographic examination of two preliminarily polished, mutually perpendicular faces of the specimens (sides A and B Fig.1), carried out at regular intervals during the test; Card 1/1/

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3" S/126/62/013/005/017/031 E193/E483

A microscope study of plastic .

examination included measurement of the length & (on the side A) and depth h (on the side 6) of the region where slip lines had Before microhardness measurements were taken, scratches were inscribed in side A of each specimen dividing it been observed. into zones with different microstructures. Microhardness of 100 grains along each scratch was then measured and microhardness frequency curves were constructed for each zone. experiments were carried out on annealed copper and steel 10, Typical results obtained cold-worked steel 10 and other metals. on annealed steel 10 specimens, tested under a load producing a deflection f = 2.3 mm and causing fracture of the specimen after:N = 2.4×10^5 cycles, are reproduced in Fig.2, 4 and 6. In Fig.2, the hardness frequency m is plotted against microhardness values (H, kg/mm2), various curves relating to zones of the specimen whose location is indicated in the insert at the top of Fig.2. In Fig.4, microhardness (H, kg/mm²) is plotted against the distance (mm) from the fixed end of the fatigue test piece, various numbers indicating different zones of the specimen, and the horizontal line at H = 100 representing microhardness of Card 2/1 4

S/126/62/013/005/017/031 E193/E483

A microscope study of plastic ..

the specimen before the test. Finally, in Fig.6, the length (mm) and depth (h, mm) of the region characterized by the formation of slip lines are plotted against the percentage of N, where The results obtained N is number of cycles to fracture. indicated that, in the case of annealed specimens, the most heavily stressed region strain-hardened first in the initial stages of fatigue, this effect spreading later to the adjacent, less heavily stressed regions. In the latter stages, the process was reversed and the metal lost its hardness, first in the most heavily stressed, and later in the adjacent regions. Slip lines. appeared only in those regions where the decrease in hardness had The increase in hardness in the initial stages of taken place. fatigue fracture does not necessarily have to take place since no evidence of this phenomenon was found in the work-hardened Using the technique described, the present author was able to pinpoint the moment of the formation of the steel 10 specimens. first fatigue cracks in the critically stressed region of the test piece, this moment coinciding with the moment of localization of the process of plastic deformation. Card 3/1/

5/126/62/013/005/017/031 E193/E483

A microscope study of plastic

7 figures and 1 table:

ASSOCIATION: Odesskiy politekhnicheskiy institut

(Odessa Polytechnical Institute)

SUBMITTED:

March 6, 1961 (initially) August 14, 1961 (after revision)

Card 4/

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

8/137/62/000/007/070/072 A160/A101

AUTHORS:

Zemskov, G. V., Kogan, R. L., Smekh, Ye. V., Zdanovich, V. L., Gushchin, L. K., Kostenko, A. V.

TITLE:

The problem of hardening steel in an ultrasonic field

PERIODICAL:

Referativnyy zhurnal, Metallurgiya, no. 7, 1962, 109, abstract 71740 ("Nauchn. zap. Odessk. politekhn. in-t", 1962, 37, 41 - 44)

TEXT; The investigation of the effect of an ultrasonic field on the process of hardening was carried out with Y8 (U8) and X 12 Φ (Kh12R) steels. For comparison reasons, experiments were made by quenching these steels in water with and without the ultrasonic field. The U8 steel was hardened from 800 - 820°C, the intensity of the ultrasonic field was within 1 - 2 va/cm², and the frequency of the ultrasonic oscillations - 23 kilogoles. The Kh12F steel was quenched from 1,130°C in oil or in water with and without the action of the ultrasonic field. The subsequent triple tempering was carried out at 510 - 530°C for 1 hour and the steel cooled in the open air. It was determined that the hardenability and that hardness of the U8 steel increase (Ro increases from 37 - 42 to 54 - 60 in a

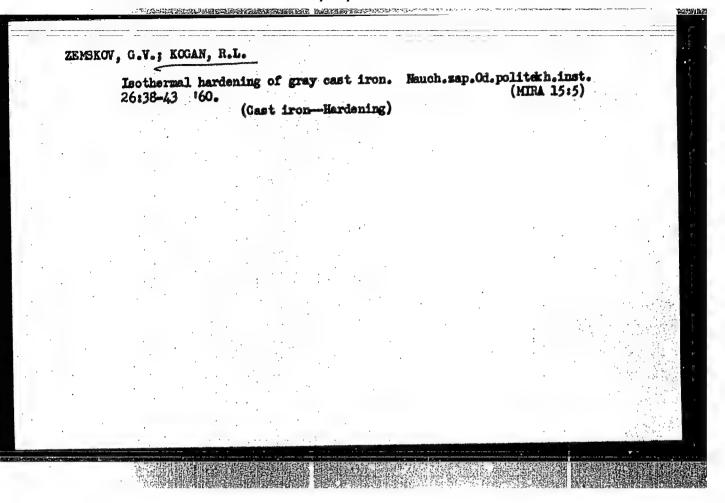
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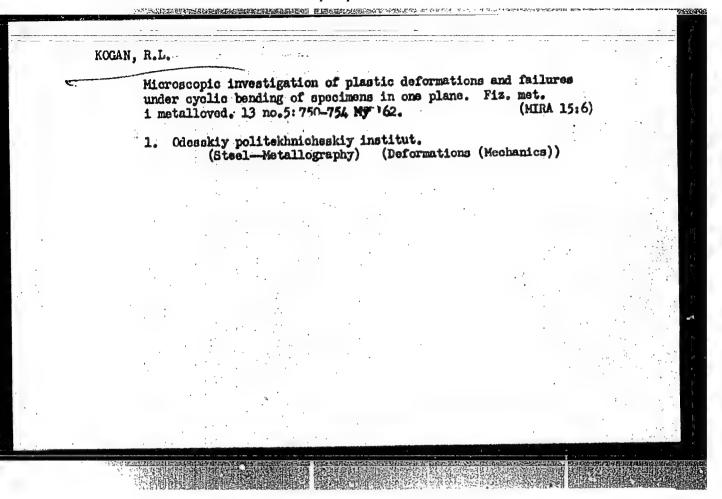
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The problem	of hardening st	eel in an ultra		'137/62/000/007/070/07 60/A101	2
layer with	a depth of 1.5 -	2 mm) when que	nching in an oil a diameter of u	bath with the use of to 20 mm. The use	
of ultrason	ic oscillations (ling in oil with	during the quen a subsequent t	ohing of the Khli riple tempering :	F steel from 1,130°C increases the micro-	
hardness by	30 kg/mm ² . The	re are o resere		. Babayeva	
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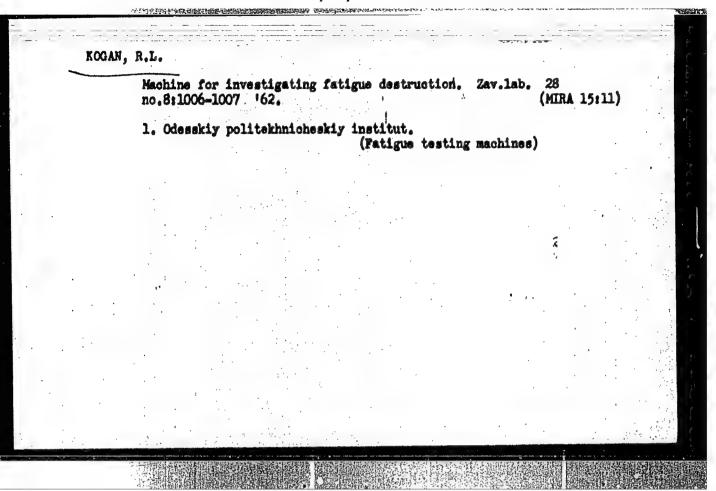
KOGAN, R.L. (Odessa)

Studying the lines of fatigue failure diagrams. Isv. AN SSSR. Otd. telh. nauk. Met. 1 topl. no.3:78-80 My-Je *52. (MIRA 15:6)

(Metals—Fatigue)







S/124/63/000/001/069/080 D234/D308

AUTHOR:

Kogan, R.L.

TITLE:

Regularities of spreading of plastic deformation in

specimens during cyclic bending

PERIODICAL:

Referativnyy zhurnal, Mekhanika, no. 1, 1963, 74, abstract 17579 (In collection: Tsiklich, prochnost'

metallov. M., AN SSSR, 1962, 54-60)

TEXT: The author investigated the change in microstructure of specimens made of steel and cast iron during cyclic plane bending. Special features of development of gliding lines and microcracks were observed. It is established that for 10-50% durability the plastic deformation becomes localized and the instant of localization coincides with the instant of appearance of microcracks. The author considers the effect of stress gradient on the ratio of depth on the deformed zone and its length.

Abstracter's note: Complete translation 7

Card 1/1

	EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/ETC(m)-6 SOURCE CODE: UR/0126/65/020/005/0789/0790	
AUTHOR: Ze Kostenko, A	IJP(c) MJW/JD/HW/JG/WB/EH/MJW(CL) mskov, G. V.; Konev, V. N.; Kogan, R. L.; Dombrovskaya, Ye. V.;	
gosuniversi A.44	a Polytechnic Institute (Odesskiy politekhnicheskiy institut); Ural tet im. A. H. Gor'kiy (Ural'skiy gosuniversitet) dation of nickel alloys in atmospheres containing sulfur	
SOURCE: F1	zika metallov i metallovedeniye, v. 20, no. 5, 1965, 788-790 nickel alloy, metal oxidation, metal surface, metal scaling, metallo-	
BSTRACT: studied. I ance of ni elting poi wides. Ch	The effect of exidation of ZhC6-K nickel alloy in sulfur atmospheres was that been previously observed that in such environments the heat resisckel decreased as a result of the formation of nickel sulfides with low nts; in addition, these sulfides form eutectics with nickel and its romium is known to retard this sulfide formation but does not prevent it. eriments, samples were cut from turbine blades which had operated for	
	UDC: 669.24 : 620.193.4	

L 14993-66

ACC NR: AP5028569

various periods at temperatures of 800-900°C in an atmosphere containing gaseous sulfur. Metallographic, x-ray and chemical analysis were performed, The scale was removed from the blades and cylindrical powder samples were made for the x-ray study in which Ka, Cr radiation was used. The nickel content was determined by the weight method while the sulfur content was established by the iodometric method. A microstructure of the base metal and of the blades in which the surfaces of the blades revealed scale formation is shown. Lowered microhardness was the result of alloying elements diffusing out to the grain boundaries. Chemical analysis of the layer showed a 1% sulfor content. The x-ray analysis of the layer showed it to have a crystal lattice of the NiO type and a phase of the spinel type. The mechanism for the formation of oxide layers in sulfur containing atmospheres was proposed for the alloy ZhC6-K. The spinel phase is formed from the following reaction:

NiO + Cr₂O₃ = NiCr₂O₄.

This phase can also alloy with other elements in the metal. Once the full scale forms, internal oxidation occurs. The oxygen diffuses faster along the grain boundaries and forms Cr₂O₃ due to the greater affinity of Cr for oxygen. In the

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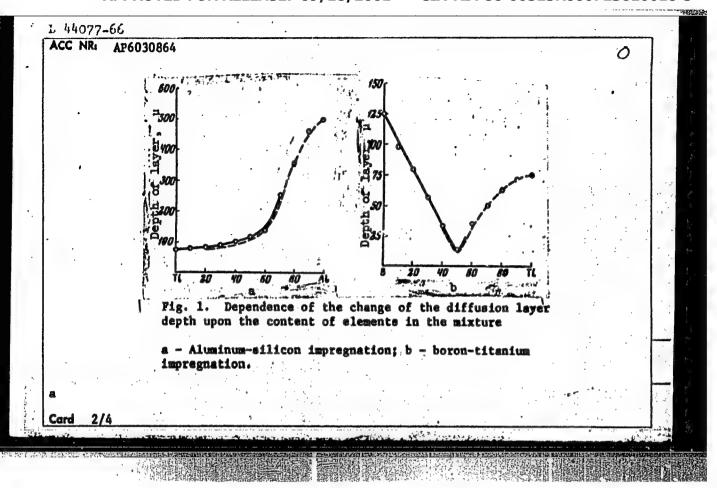
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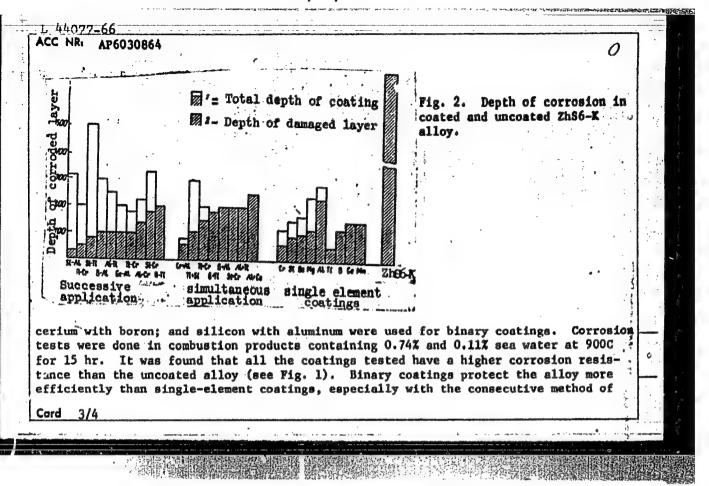
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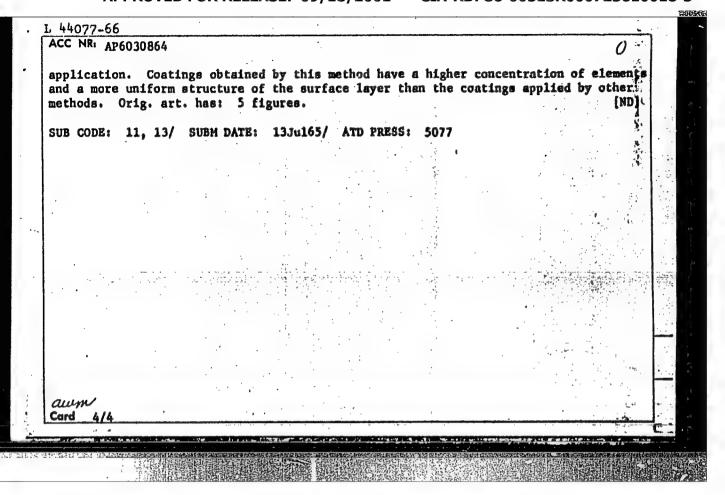
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n. le. (Enginee)					;
ORG: none	1	1,4,55	1841.55	.514.75	
TITLE: Titanium	-silicon and ti	tanium-aluminum d	coatings of ni	kel-base allo	y
SOURCE: Energo	ashinostroyeniv	e, no. 1, 1966,	14-35		
TOPIC TAGS: nic	kel, nickel alle	oy, nickel alloy	coating, tital	nium silicon co	oating,
	and the second s				
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titanium aluminu tant coating, o alloy	m coating, coat	ing oxidation, or n, gas corrosion	dation resist corrosion re	tance, oxidationsistance/ZhS6-	on resis- K nickel
tant coating, c	coating corrosion	n, gas corresion	, corrosion re	sistance/ZhS6-l	K nickel
tant coating, alloy ABSTRACT: An at	coating corrosion	n, gas corrosion	corrosion rec	of ZhS6-K nic	K nickel kel-base
tant coating, alloy ABSTRACT: An at alloy to gas con	tempt has been in	n, gas corrosion made to improve (900C in an atmos	corrosion recherces the resistance there contains	of <u>ZhS6-K</u> nich	K nickel kel-base sea-water
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AUTHOR: Zemskov, G. V.; Kogan, R. L.; Dombrovskaya, Ye. V.; Kostenko, A. V.; Shevchenko, I. M.; Koss, Ye. V.; Fadeyeva, E. V.; Khmelevskaya, H. Ye.; Hikotina, N. F. ORG: Odessa Polytechnical Institute (Odesskiy politekhnicheskiy institut) TITLE: Protective diffusion coatings of nickel alloy SOURCE: Zashchita metallov, v. 2, no. 5, 1966, 576-580 TOPIC TAGS: nickel chromium alloy, aluminum containing alloy, titanium containing alloy, tungsten containing alloy, skiny protective coating, skiny corrosion resistance, diffusion coating alloy, alloy oxidation resistance/ZhS6-K alloy ABSTRACT: A series of diffusion coatings were tested for protection of ZhS6-K nickel base alloy (0.13-0.20% carbon, 10.5-12.5% chromium, 5-6% aluminum, 2.5-3% titonium, 2.5-3% tungsten, 4.5-5.5% molybdenum, 0.13-0.20% boron) against gas corrosion in a mixture of products of sulfurous fuel combustion and sea water vapors after all attempts to improve alloy oxidation resistance by alloying failed. Alloy specimens were diffusion coated with one or toelements used simultaneously or one after the other. The coating was done by a pack rementation at 900-1000C for 10 hr. Chromium, aluminum/silicon/titanium/boron/cerium/beryllium/and magnesium/were used as single-element coatings. Chromium with titanium, silicon, aluminum, or boron; aluminum with boron, cerium, or titanium; titanium with silicon or boron; manganese with boron; Card 1/4 UDC: 621.793.4		6030864 P(c)	10/HW/JG/WB/JH		2/005/0576/0580	
CITLE: Protective diffusion coatings of nickel alloy COURCE: Zashchita metallov, v. 2, no. 5, 1966, 576-580 COPIC TAGS: nickel chromium alloy, aluminum containing alloy, titanium containing alloy, tungsten containing alloy, allow protective coating, atlay corrosion resistance diffusion coating alloy, alloy oxidation resistance/ZhS6-K alloy CASTRACT: A series of diffusion coatings were tested for protection of ZhS6-K nickel case alloy (0.13-0.20% carbon, 10.5-12.5% chromium, 5-6% aluminum, 2.5-3% titanium, 2.5-3% titanium, 2.5-3% tungsten, 4.5-5.5% molybdenum, 0.13-0.20% boron) against gas corrosion in a mixture of products of sulfurous fuel combustion and sea water vapors after all attempts to improve alloy oxidation resistance by alloying failed. Alloy specimens were diffusion coated with one or totalements used simultaneously or one after the other. The coating was done by a pack cementation at 900-1000C for 10 hr. Chromium, aluminum/silicon/titanium/boron;/cerium/beryllium/and magnesium/were used as single-slement coatings. Chromium with titanium, silicon, aluminum, or boron; aluminum with boron, cerium, or titanium; titanium with silicon or boron; manganese with boron;	hevchenko,	I. M.; Koss, Ye.	V.; Fadeyeva, E. V.;	Khmelevskaya, H. Y	e.; Mikotina, N. P.	
OURCE: Zashchita metallov, v. 2, no. 5, 1966, 576-580 OPIC TAGS: nickel chromium alloy, aluminum containing alloy, titanium containing lloy, tungsten containing alloy, saley protective coating, atley corrosion resistance iffusion coating alloy, alloy oxidation resistance/ZhS6-K alloy BSTRACT: A series of diffusion coatings were tested for protection of ZhS6-K nickel ase alloy (0.13-0.20% carbon, 10.5-12.5% chromium, 5-6% aluminum, 2.5-3% titanium, 5-3% tungsten, 4.5-5.5% molybdenum, 0.13-0.20% boron) against gas corrosion in a inture of products of sulfurous fuel combustion and sea water vapors after all ttempts to improve alloy oxidation resistance by alloying failed. Alloy specimens are diffusion coated with one or welements used simultaneously or one after the other. The coating was done by a pack cementation at 900-1000C for 10 hr. Chromium, aluminum/silicon/titanium/boron/cerium/beryllium/and magnesium/were used as single-lement coatings. Chromium with titanium, silicon, aluminum, or boron; aluminum with oron, cerium, or titanium; titanium with silicon or boron; manganese with boron;			4 1		titut)	
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BSTRACT: A series of diffusion coatings were tested for protection of ZhS6-K nickel ase alloy (0.13—0.20% carbon, 10.5—12.5% chromium, 5—6% aluminum, 2.5—3% tipenium .5—3% tungsten, 4.5—5.5% molybdenum, 0.13—0.20% boron) against gas corrosion in a ixture of products of sulfurous fuel combustion and sea water vapors after all ttempts to improve alloy oxidation resistance by alloying failed. Alloy specimens ere diffusion coated with one or to elements used simultaneously or one after the other. The coating was done by a pack cementation at 900—1000C for 10 hr. Thromium, aluminum/silicon/titanium/boron/cerium/beryllium/and magnesium/were used as single—lement coatings. Chromium with titanium, silicon, aluminum, or boron; aluminum with oron, cerium, or titanium; titanium with silicon or boron; manganese with boron;	lloy, tung	sten containing al	lloy, alloy protective	e coating, a tley co	ium containing rosion resistance	
ase alloy (0.13—0.20% carbon, 10.5—12.5% chromium, 5—6% aluminum, 2.5—3% tipenium, 5—3% tungsten, 4.5—5.5% molybdenum, 0.13—0.20% boron) against gas corrosion in a ixture of products of sulfurous fuel combustion and sea water vapors after all ttempts to improve alloy oxidation resistance by alloying failed. Alloy specimens ere diffusion coated with one or to elements used simultaneously or one after the other. The coating was done by a pack rementation at 900—1000C for 10 hr. Thromium, aluminum/silicon/titanium/boron/cerium/beryllium/and magnesium/were used as single-lement coatings. Chromium with titanium, silicon, aluminum, or boron; aluminum with oron, cerium, or titanium; titanium with silicon or boron; manganese with boron;	iffusion c	oating alloy, allo	oy oxidation resistan	ce/ZhS6-K alloy	16	
ixture of products of sulfurous fuel combustion and sea water vapors after all tempts to improve alloy exidation resistance by alloying failed. Alloy specimens are difficient coated with one or to elements used simultaneously or one after the other. The coating was done by a pack cementation at 900—1000C for 10 hr. Chromium, aluminum/silicon/titanium/boron/cerium/beryllium/and magnesium/were used as single-lement coatings. Chromium with titanium, silicon, aluminum, or boron; aluminum with cron, cerium, or titanium; titanium with silicon or boron; manganese with boron;	ase alloy .5-3% tun	(0.13-0.20% carbo gsten, 4.5-5.5% i	on, 10.5—12.5% chrommolybdenum, 0.13—0.20	ium, 5—6% aluminum 0% boron) against g	as corrosion in a	4
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oron, cerium, or titanium; titanium with silicon or boron; manganese with boron;	me coating	was done by a pacint/titanium//boros	ck cementation at 909 in /cerium/beryllium/	-1000C for 10 hr. and magnesium were	Chromium, alumi- used as single-	
ord 1/4 UDC: 621.793.4	lement coa	tings. Chromium um, or titanium;	with titanium, silicontitanium with silicon	n, aluminum, or bor n or boron; mangane	on; aluminum with see with boron;	
A second	ron, ceri	and the second s	Imc:	621.793.4		







1 38440-66 EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) ACC NR: AP6024528 SOURCE CODE: UR/0148/66/000/007/0138/0142 AUTHOR: Zemskov, G. V.; Dombrovskaya, Ye. V.; Kogan, R. L.; Shevchenko, Odessa Polytechnic Institute (Odesskiy politekhnicheskiy institut) TITLE: Cementation with boron and titanium SOURCE: IVUZ. Chemaya metallurgiya, no. 7, 1966, 138-142 TOPIC TAGS: nickel alloy, heat resistant alloy, boron, titanium, alloy bizing, alloy titanizing, alloy diffusion coating, iron, iron diffusion coating metal diffusion, alloy composition, metal coating/ ZhS6-K heat resistant alloy alloy boron-ABSTRACT: The structure of diffusion layers in ZhS6-K heat-resistant alloy and commercial-grade iron, obtained by pack cementation at 900-1050C in mixtures of boron and titanium, or boron carbide and borax, or in titanium alone, has been investigated. The thickness, composition, and microhardness of diffusion layers produced in mixtures of titanium and boron varied widely depending on the boron titanium ratio in the mixture (see Fig. 1). In mixtures containing 37-57% titanium for ZhS6-K alloy or 37% titanium for iron, the diffusion rate of boron and titanium is roughly the same. The diffusion layer in ZhS6-K alloy produced in a 50-50 mixture of boron and titanium consisted of a solid solution of boron and titanium in nickel with inclusions of titanium boride on the very surface and at the metal-diffusion layer interface. Card 1/2 UDC: 669.14.018.45:669.781:669.295:621.785

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KOGAN, R.M

49-58-2-8/18

AUTHOR: Kogan, R.M.

TITLE: Botto Integral Regularities in the Y-field Distribution in Laminated Media (Nekotoryyo integral'nyye zakonomerno ii raspredeleniya gamma-polya v sloistykh sredakh)

FERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 2, pp.225-234 (USSR)

In real conditions geological formations often occur in the form of extended layers. The γ -field distribution in a system of such layers is best discussed in terms of a ADJTRACT: model such as a laminated medium. The following assumptions are made: (1) γ-rays interact with atoms or elementary particles in the substance so that these may be considered as the centres of interaction of the \gamma-rays with the substance; (2) the absorbing medium is taken as an ensemble of centres of interaction of a given kind, the volume density of which is described by some function of space coordinates; (3) between successive interactions of a γ -ray its trajectory is a section of a straight line; (4) the full trajectory of the \u00e4-ray in the absorbing medium may be taken as a

Card 1/2

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49-58-2-8/18

Some Integral Regularities in the γ -field Distribution in Laminated Media.

broken straight line. On the basis of the simple assumptions about the interaction of γ -rays with matter, properties of γ -ray trajectories are established as well as properties of integral parameters of the γ -field for a point source in laminated media. Expressions are derived which can be used to calculate for a laminated medium the integral parameters of point, volume and plane-distributed sources from known angular spectral characteristics of a γ -field for a point source in a uniform medium. An estimate is made of "secondary effects" such as the formation of Compton electrons, photoelectrons etc. The regularities established can be used in aerial γ -surveys and similar work. There are no figures or references.

ASSOCIATION: Academy of Sciences of the USSR, Institute of Applied Geophysics (Akademiya nauk SSSR, Institut prikladnoy geofiziki)

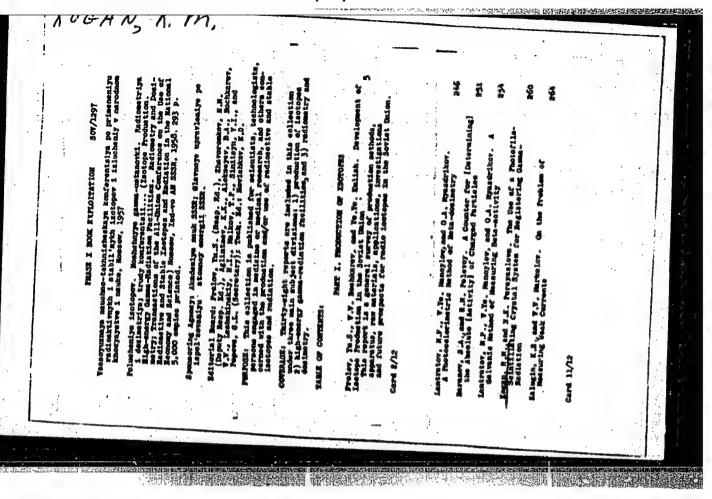
SUBMITTED: December 24, 1956.

AVAILABLE: Library of Congress.

Card 2/2

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610018-3



Kogon R.M.

AUTHORS: Kogan, R.M. and Pereyaslova, N.K.

120-4-5/35

TITLE:

Application of a Film-scintillator System for Recording of Gamma Radiation (Primeneniye sistemy fotoplenka-stsintilliruyushchiy kristall dlya registratsii gamma-izlucheniya)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.4, pp. 25 - 27 (USSR).

ABSTRACT: The application of a photographic film to the detection of gamma rays is well known. The present authors were confronted with the problem of measuring weak gamma ray intensities and also the variation of these intensities with time. The conventional photographic detection was found to be insufficiently sensitive. Consequently, the following system is adopted. A sodium iodide scintillator of the well type was covered with a film. Thus, the incident gamma radiation produces a blackening of the film both directly and also via the scintillations produced in the crystal. If the gamma ray intensity varies with time, it may be studied by passing a film continuously over the crystal. In this way, one obtains the gamma ray intensity as a function of time. It is shown that this system Cardl/2 is 103-104 as sensitive as the conventional film detector.

Application of a Film-scintillator System for Recording of Gamma Radiation.

There are 5 figures and 2 Slavic references.

Institute of Applied Geophysics of the Ac.Sc. USSR. (Institut prikladnoy geofiziki AN SSSR) ASSOCIATION:

SUBMITTED: February 19, 1957.

AVAILABLE: Library of Congress

Card 2/2

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723610018-3"

SOV/49-59-7-6/22

AUTHOR: Kogan R. M.

TITIE: On a Method of Calculation of the γ -Radiation Energy in the Air Portion of a Homogeneous Geological Medium

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 7, pp 988-994 (USSR)

ABSTRACT: In order to avoid a difficult calculation of the primary γ -quantum energy E_0 (Eq (1)), a composite parameter of γ -radiation N is often expressed in terms of the energy in the air portion P . The absorbed energy can be defined as Eq (2) or as Eq (2a) in the case of the absorbed part which can be measured (in ergs/gm) and the formula (3) can be derived (Q - energy of the source of radiation). In order to express the radiation in terms of the ionization (in roentgens), the formulae (4) and (4a) should be applied where $\omega(E)_{air}$ — ionization effect in the air of the radiation energy E . It should be noted that for E < 3 MeV,

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SOV/49-59-7-6/22

On a Method of Calculation of the \gamma-Radiation Energy in the Air Portion of a Homogeneous Geological Medium

the formula:

ω(E)air ~ ασabs.(E)air

can be defined and that the energy of the γ-radiation in the air portion is inversely proportional to the number of electrons. Thus, the energy of the medium can be defined as Eqs (5) and (6) where N - number of electrons, ρ - density, k - measure coefficient, γ - weight of

the radioactive matter. As an example, the radiation energies in water (Eq (?)) and in the air-water zone (Eq (8)) are given. Also the air portion energy in the case of an additional γ -radiation scattered in the medium can be calculated (Eqs (9) and (10)). The energy of the air portion in rocks depends on their atomic content (Table 1) and on E₀. This can be expressed by the Eqs (11)-(14) for $0.2 < E < E_0 < 3.0$ MeV (where z - atomic number). The energy of rocks ($z \le 15$) can be determined from Eq (17),

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SOV/49-59-7-6/22

On a Method of Calculation of the y-Radiation Energy in the Air Portion of a Homogeneous Geological Medium

but in the case of a rock-air or rock-water zone, the formula (8) should be applied. All the above formulae are calculated to within 5-10 degrees of accuracy. There is 1 table and there are 11 references, of which 4 are English and 7 are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut prikladnoy geofiziki (Academy of Sciences USSR, Institute of Applied Geophysics)
SUBMITTED: January 20, 1959.

Card 3/3